Rahway Arch Properties LLC and Soil Safe Project
Carteret, New Jersey
Fact Sheet for Site Visit

Date and Time of Site Visit: Tuesday June 24, 2014, 11am-12pm

Site Address: 300 Salt Meadow Drive, Carteret, NJ. Enter at Kinder Morgan entrance. Stay to the left and do not enter Kinder Morgan. The road will go around the east side of the KTR warehouse building. Look for the small warehouse guard shack. Make a right turn and proceed down the gravel road to the project site.

Point of Contact for Site Visit: Ken Kloo, Director of Remediation Management, NJDEP, cell phone (240) 381-6520.

Issue: Rahway Arch Properties LLC submitted a Remedial Action Workplan (RAW) to the New Jersey Department of Environmental Protection (NJDEP), through their consultant, EastStar Environmental Group (an LSRP), to address the former 124.7 acre YPS-Alum Sludge Cytec Impoundments Site, that Rahway Arch Properties LLC purchased in 2010. NJDEP conditionally approved and has issued the following permits: Coastal General Permit #15, Freshwater Wetlands General Permit #4 and #11, Flood Hazard Area Verification and Flood Hazard Area Individual Permit.

The work proposed would involve the placement of an "engineered low permeability fill cap" over the existing six surface impoundments which comprise over 85 acres of the site and implementation of stormwater controls. The cap would be comprised of processed petroleum contaminated soil; the soil would be processed on-site by Soil Safe under an NJDEP-issued Class B recycling permit. The objectives of the project as presented by NJDEP are to raise the site above the high tide levels of the Rahway River and the new Advisory Base Flood Elevations (ABFE), to prevent stormwater infiltration, presently estimated at 25,500,000 gallons of water from infiltrating through the contaminated materials into the groundwater, manage and discharge the stormwater to surface water through an engineered stormwater management system, and to establish a structurally stable surface to eliminate the present unsafe very soft conditions presented by the YPS-alum sludge.

Interest from Elected Officials: U.S. Senator Charles Schumer, along with NY/NJ elected officials including U.S. Congressman Michael Grimm, have raised concerns with the proposed activities and the potential to impact adjacent waters and wetlands during a flood event. Additionally, elected officials and nongovernmental organizations have expressed concern over the potential for the weight of the capping material to compromise the existing on site berms and sludge impoundments, leading to displacement or release of sludge into the adjacent wetlands and/or Rahway River.

Background: From 1917 to 1998, American Cyanamid Co. operated the "Warner Plant" on 30 acres in Linden, NJ (Tremley Point) at the junction of the Rahway River and the Arthur Kill. Between the mid-1930s and 1974, American Cyanamid pumped acid sludge from the alum manufacturing process and alkaline sludge from the yellow prussiate of soda (YPS) (a.k.a - sodium ferrocyanide) manufacturing process, as well as other wastes in slurries across the Rahway River and into the surface impoundments in Carteret. It is estimated that the surface impoundments currently contain over 2,000,000 tons of the YPS-alum sludge ranging from 5 to 20 feet in thickness. This sludge has been identified as mayonnaise as it has no shear strength and a rod can be pushed down through its entire length by hand.

In addition to the sludge, debris from construction/demolition activities at the Warner plant, wood from a now defunct processing plant, railroad ties, marine pilings and docking materials, as well as undocumented fill have also been deposited on site. Groundwater on site is contaminated with metals including arsenic, manganese, iron and silver, as well as cyanide.

Under order of the New Jersey Superior Court, between 1986 and 1989, a 12 inch cover of soil and composted sewage sludge from Camden and Philadelphia was placed over the impoundments to promote vegetative growth. The cover was placed in order to control dust that was obscuring vision on the N.J. Turnpike. In the early 1990s the site was investigated under the direction of the NJDEP Site Remediation Program (SRP). As a result, Cytec obtained a Declaration of Environmental Restriction (Deed Restriction) and submitted a remedial action plan (RAP) to NJDEP. In September 2002 NJDEP issued a Restricted Use No Further Action and Covenant Not to Sue letter (NFA&CNS). In 2013 NJDEP indicated to Cytec its intention to revoke this letter, based on the finding of Rahway Arch's LSRP EastStar Environmental that the existing cap is no longer protective.

Status: Placement of the waste materials at the Rahway Arch site pre-date RCRA regulation. In 2007 EPA determined that no further remedial action by the Federal Superfund Program was warranted at the American Cyanamid impoundment site. EPA has no evidence of "active management" of the waste materials since RCRA became effective, which could be an avenue for jurisdiction under RCRA.

EPA reviewed the RAW and the modified state permits referenced above, and has had discussions with NJDEP. The existing surface material placed by Cytec in the late 1980s as part of the 12-inch cover is comprised of undocumented surface fill over the road, berms and impoundments and the alum-YPS sludge and contains metals, cyanide and polycyclic aromatic hydrocarbons (PAH) compounds above the residential remediation standards. These contaminants are disbursed over the entire 85 acre remediation area. Specific analytes on site that exceed the residential standards are arsenic, lead, mercury, vanadium, cyanide and six PAHs.

The LSRP asserts that the proposed concentrations in the alternative fill comply with the NJDEP's requirements for alternative fill. Specifically, mean (average) contaminant concentrations in the proposed engineered fill material will be below residential standards for all the analyzed parameters except the six individual PAH compounds that presently exist on-site at concentrations above the state residential standards, based on the LSRP's review of sampling data from previous site investigations.

According to the NJDEP modified permits, the concentration of these compounds will be less than half of the existing concentrations of these compounds on the site.

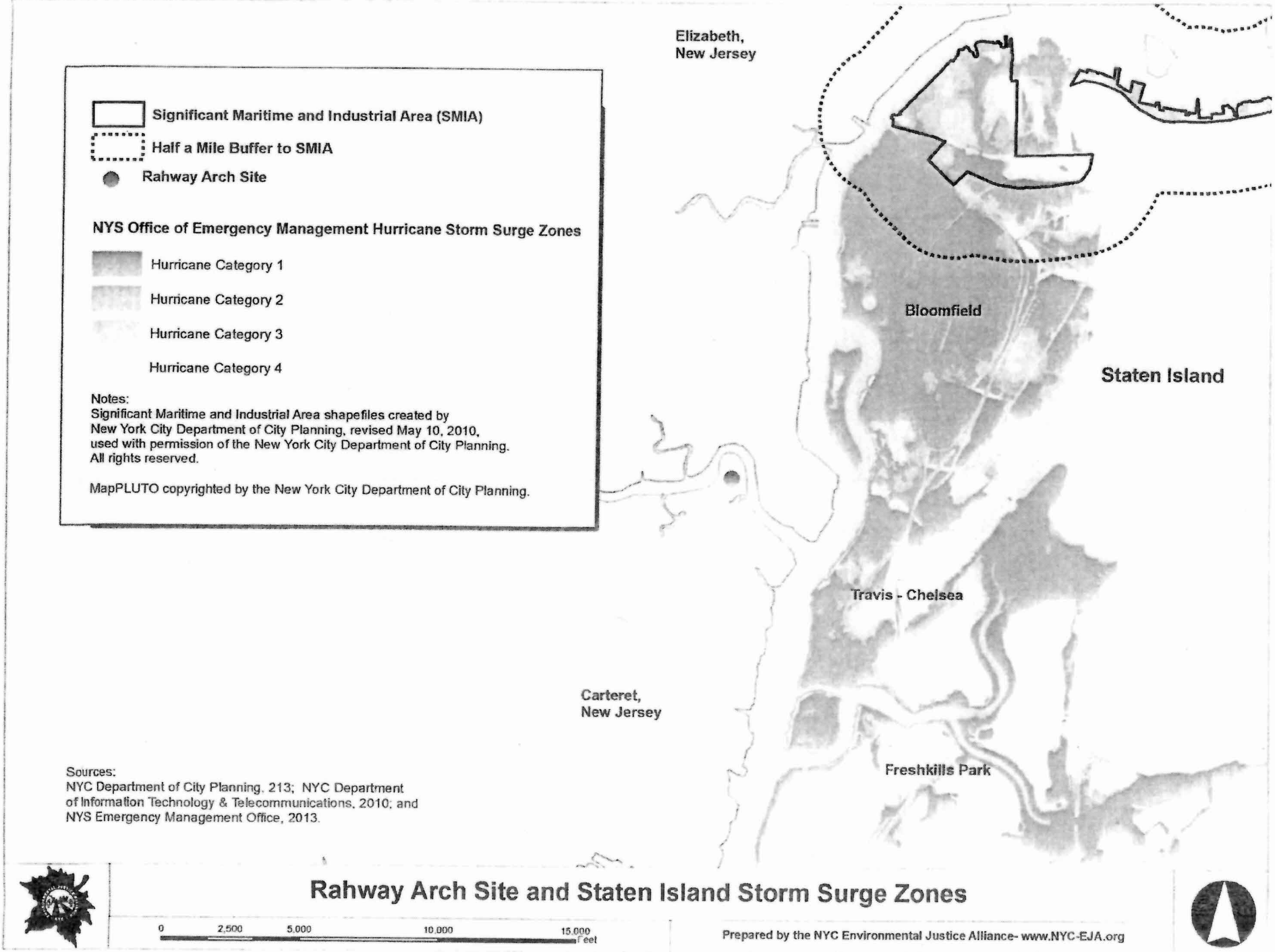
EPA compared the average concentrations of the six PAHs to EPA's Regional Screening Levels (RSLs) for industrial (i.e., nonresidential) soil (these values are less stringent than the state's residential standards for the six PAHs). Given a worst case scenario of no additional treatment of the engineered fill product through the solidification/stabilization process, the mean (average) concentrations of four PAHs might exceed EPA's industrial screening criteria.

Regarding protection of groundwater, the LSRP proposes semi-annual groundwater monitoring after cap construction, and expanded groundwater monitoring during cap construction to ensure contaminants are not being discharged as a result of the remediation. The concentrations in the engineered fill material for the six parameters that would exceed the state's residential standards would also likely exceed EPA's risk-based site screening levels for protection of groundwater. It is expected that, if needed, the LSRP would pursue and NJDEP would issue a remedial action permit for groundwater, which would contain provisions for a classification exception area (CEA), whereby groundwater use would be restricted based on exceedances of specific analytes.

In regards to potential flooding, NJDEP determined that the areas of the Class B facility to be used for the processing and storage of material will be located entirely above the Advisory Base Flood Elevation of 15' NAVD88, thus this aspect of the project is not subject to flooding or the requirements of the Flood Hazard Area Control Act rules at N.J.A.C. 7:13-11.17.

In regards to wetlands at the site, previously, in October 2013, the Corps of Engineers issued an approved jurisdictional determination for the property which stated that there is no state-permitted construction work within regulated waters or wetlands of the United States under Section 404 of the Clean Water Act or Section 10 of the Rivers and Harbors Act of 1899 on the site. There is no federal wetlands jurisdiction on this property as the project is currently proposed.

NJDEP approved construction within the state-regulated 50-foot-wide upland transition zone adjacent to the wetlands and waterways in its permit of May 24, 2013. The federal government does not regulate this upland transition zone.



Rahway Arch Site and Staten Island Storm Surge Zones